# Cell Theory Historical Time Line

STANDARD 3200-03 Students will understand structure and function of cells and organisms.

OBJECTIVE 3200-0301 Evaluate evidence to support cell theory.

#### **Intended Learning Outcomes:**

- 1c. Use reference sources to obtain information.
- 4a, b, c. Historical development of science, developments in technology, contributions of scientists.
- 5b. Basic science facts.
- 6d. Construct a chart (timeline).

## **Background:**

Reviewing the history of the development of the cell theory on the previous page.

#### **Summary:**

- 1. Students will research historical events leading to the development of the cell theory.
  - o Research should include contributions made by the following people/scientists -Robert Hooke, Hans and Zacharias Janssen, Anton van Leeuwenhoek, Matthias Schleiden, Theodor Schwann, Rudolph Virchow, etc. and dates of their contributions.
- 2. Students will report on their findings by constructing a timeline showing the chronology of the historical events leading to the development of the cell theory.

#### **Materials** for each student or pair of students:

- Reference materials (texts, encyclopedias, Internet, teacher handout with information)
- rulers
- colored pencils or markers.

### **Student Procedures:**

• Research the following people: List some of their contributions to science and dates of these contributions.-

Robert Hooke-

Hans and Zacharias Janssen-

Anton van Leeuwenhoek-

Matthias Schleiden-

Theodor Schwann-

Rudolph Virchow.

• Draw a timeline showing the chronological order of these scientists and their contributions.

Label the timeline with dates of the above scientists' discoveries.

The earliest date should be on the left of the timeline and the most recent date on the right. Label each date with the corresponding scientist's name and contribution(s) in an organized and legible manner.

Be sure your spacing shows a reasonable approximation of the amount of time elapsed between dates.

## Questions:

- 1. What theory did these scientists provide evidence for?
- 2. What instrument was necessary before the cell theory could be developed?
- 3. Which three scientists directly contributed evidence for the cell theory?
- 4. How did the earlier scientists and their contributions directly affect the discoveries of later scientists (see #2)? For example, what had to come first?
- 5. List the three parts of the cell theory.







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Answers and a sample timeline to this activity are available.

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